REMARKS

A total of 33 claims remain in the present application. This paper is presented in response to the Office Action mailed March 21, 2007, wherefore reconsideration of this application is requested.

Referring now to the text of the Office Action:

- claims 1 and 17 stand rejected under 35 U.S.C. § 102(e) or 103(a) as being unpatentable over the teaching of United States Patent No. 6,912,232 (Duffield et al) in view of United States Patent No. 6,269,330 (Cidon et al.);

- claims 2 and 18 stand rejected under 35 U.S.C. 103(a) as being unpatentable over the teaching of United States Patent No. 6,912,232 (Duffield et al) in view of United States Patent No. 6,269,330 (Cidon et al.);

- claims 6, 8-16, 22, 23, 25-33 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the teaching of Duffield et al in view of Cidon et al, and further in view of United States Patent No. 6,708,209 (Ebata et al.);

- claims 3-5 and 19-21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the teaching of Duffield et al in view of Cidon et al, and further in view of Ebata et al., and yet further in view of United States Patent No. 6,765,927 (Martin); and

- claims 7 and 24 are objected to as being dependent on a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As an initial matter, applicant appreciates the Examiner's indication of allowable subject matter in claims 7 and 24. The Examiner's claim rejections under 35 U.S.C. §§ 102 and 103 are believed to be traversed in view of the following discussion.

As pointed out by the Examiner at page 3 of the Office Action, Duffield fails to teach or suggest a step of sending QoS information through the VPN tunnel to a VPN gateway at the opposite end of the tunnel, prior to attachment of QoS markers to traffic within the tunnel. However, the Examiner then argues that Cidon et al "..discloses establishing a plurality of connection with various QoS requirements and thereafter checking how well the connections actually support the promised QoS (col. 18 lines 44-50)." The Examiner then relies on this teaching to assert that "It would have thus been obvious ... to incorporate the concept of testing a connection between a source and destination with a particular QoS requirement as disclosed by Cidon into the method for a virtual private network as disclosed by Duffield in order to efficiently test a VPN tunnel so that QoS may be guaranteed. Thus the VPN tunnel be forwarded with emulated data comprising QoS information so that testing of the tunnel may occur before actual data marked with a specified QoS is sent."

Applicant agrees that Cidon et al provides various methods for testing the performance of a network. According to Cidon et al, testing of the network is controlled by a testing center, which sends commands and sets of commands (called "subscripts") to client agents which emulate users of the network, and Network management (NM) agents which monitor the state of each node and generate appropriate reports. [See col. 2, lines 32-63] As suggested by the examiner, this system might be applied to test the network performance in terms of the set-up and operation of VPN tunnels. Thus, for example, the testing center could prepare and send appropriate subscripts to a pair of client agents, directing those client agents to request the network to set-up a VPN tunnel between a pair of selected end-points. Once the VPN tunnel was set-up, further subscript commands could be used to command the client agents to generate and send test traffic through the VPN tunnel, and traffic metrics monitored (possibly by either the client agents and/or the NM agents) to enable determination of whether or not the desired tunnel QoS is being satisfied.

However, none of these operations suggest or imply that a client agent might send QoS information through the VPN tunnel to an opposite end node, prior to attaching QoS markers to traffic in the tunnel. In fact, such a step would appear to be entirely redundant since the test center, and thus also the client agents at both ends of the tunnel, already have the QoS information.

Furthermore, the person of ordinary skill in the art will recognise that there is no obvious method of applying the testing methods of Cidon et al as a means of testing the VPN tunnel of Duffield et al prior to use, as suggested by the Examiner. In particular, it is well known that a VPN tunnel is set up between two specific users, following an authentication process that tightly links the VPN tunnel parameters, including access to the tunnel, to the specific users who set up the tunnel. Once the tunnel has been set up, it is simply not possible for a different user (or a user agent) to send traffic through that tunnel. Thus, for example, if a VPN tunnel were set up according to the methods of Duffield et al, a client agent (as per Cidon et al) would be prevented from sending test traffic through that tunnel, and so could not test the performance of that tunnel. On the other hand, if a VPN tunnel was set-up by one of Cidon's client agents, then the VPN tunnel performance could be tested, but then it would not be possible for Duffield's user to access the VPN tunnel following completion of Cidon's test subscript.

With respect to possible rejections under 35 U.S.C. § 103, as noted above, Duffield et al do not provide any teaching or suggestion that QOS information is sent "through the VPN tunnel to a VPN gateway at an opposite end of the VPN Tunnel", independently of attaching a QoS marker to traffic within the tunnel, as required by claims 1 and 17. Furthermore, Duffield provides no motivation for making any such modification.

None of the other cited references provide the missing teaching. Cidon et al teach methods of testing a network, but do not teach of suggest sending QOS information "through the VPN tunnel to a VPN gateway at an opposite end of the VPN Tunnel" prior to attaching a QoS marker to traffic within the tunnel, as required by claims 1 and 17

For at least the foregoing reasons, it is respectfully submitted that the presently claimed invention is clearly distinguishable over the teachings of the cited references, taken alone or in any combination. Thus it is believed that the present application is in condition for allowance, and early action in that respect is courteously solicited.

If any extension of time under 37 C.F.R. § 1.136 is required to obtain entry of this response, such extension is hereby respectfully requested. If there are any fees due under 37 C.F.R. §§ 1.16 or 1.17 which are not enclosed herewith, including any fees required for an extension of time under 37 C.F.R. § 1.136, please charge such fees to our Deposit Account No. 19-5113.

Respectfully submitted,

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